

ABSTRACT

A coolant union includes a seal assembly having a first seal member and a non-rotating second seal member. At least one of the annular sealing surfaces presented by the rotating seal member and the non-rotating seal member is chamfered such that the chamfered sealing surface presents a sealing surface width less than the width of the dimension of the other sealing surface. The fluid coolant union further includes a U-shaped annular secondary seal member having a chamfered portion structurally arranged to receive a triangular back-up ring which stores sufficient relative displacement of the floating seal assembly to create a separation between the first rotating seal and the second non-rotating seal members during the unpressurized condition.